

CLAIMS

What is claimed is:

1 1. A computer-readable medium having stored thereon a
2 data structure comprising:

3 an eventname field containing data representing a
4 simulation event; and

5 a design entity field containing data representing an
6 entity name of a design entity from which said simulation
7 event is generated.

1 2. The computer-readable medium of claim 1, wherein said
2 simulation event is a count event, a fail event, or a
3 harvest event.

1 3. The computer-readable medium of claim 1, wherein said
2 data structure further comprises an instantiation
3 identifier field containing data specifying an instance of
4 said design entity from which said simulation event is
5 generated.

1 4. The computer-readable medium of claim 1, wherein said
2 data structure further comprises an instrumentation entity
3 field containing data representing an instrumentation
4 entity that generates said simulation event from within
5 said design entity.

1 5. The computer-readable medium of claim 4, wherein said
2 design entity field and said instrumentation entity field
3 produce a unique event namespace for each instrumentation
4 entity associated with said design entity.

1 6. The computer-readable medium of claim 4, wherein said

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2 instrumentation entity field contains the name of an
3 embedded instrumentation entity.

1 7. The computer-readable medium of claim 4, wherein said
2 instrumentation entity field further contains data
3 specifying an instance of said instrumentation entity that
4 generates said simulation event from within said design
5 entity.

1 8. The computer-readable medium of claim 1, wherein said
2 simulation event is defined in an instrumentation entity
3 comment, and wherein said data within said eventname field
4 includes the name given to said simulation event within
5 said instrumentation entity description comment.

1 9. The computer-readable medium of claim 1, wherein said
2 design entity name is unique with respect to entity names
3 of other design entities.

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1 10. A method for processing a simulation event during
2 model simulation, said method comprising:

3 associating a design entity identifier with a
4 simulation event; and

5 evaluating occurrences of said simulation event within
6 said simulation model in accordance with said design entity
7 identifier.

1 11. The method of claim 10, wherein said design entity
2 identifier includes a design entity name, and wherein said
3 associating step further comprises encoding said design
4 entity name within a hardware description language
5 declaration of said simulation event.

1 12. The method of claim 11, wherein said design entity
2 identifier further includes a design entity instantiation
3 identifier, and wherein said associating step further
4 comprises encoding said design entity instantiation
5 identifier within said hardware description language
6 declaration of said simulation event.

1 13. The method of claim 10, further comprising
2 associating an eventname with said simulation event.

1 14. The method of claim 10, further comprising
2 associating an instrumentation entity with said
3 simulation event, wherein said instrumentation entity is
4 instantiated within said design entity.

1 15. The method of claim 14, further comprising
2 generating at least one instance of said design entity.

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- 1 16. The method of claim 15, wherein said generating step
- 2 further comprises generating an instrumentation instance
- 3 data structure wherein said simulation event is declared.

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